CLAIMS

I claim:

1. A seal for use in a well bore, comprising

a first tubular member and a second tubular member, wherein said first tubular member is positionable within said second tubular member and separated therefrom by an annular volume,

a sealing ring which is mechanically connected to said first tubular member and is selectively positionable into a sealing contact with said second tubular member,

a first cavity between said first tubular member and said sealing ring, and

a second cavity between said second tubular member and said mechanical connection,

wherein said first cavity is in fluid communication with either the annular volume above or below the seal, and wherein said second cavity is in fluid communication with the other of said annular volumes.

2. The device of claim **1**, wherein said sealing ring comprises an elastomer material.

3. The device of claim **1**, wherein said mechanical connection between said sealing ring and said first tubular member comprises a stop ring.

4. The device of claim **3**, wherein said stop ring comprises a lock ring.

5. The device of claim **1**, wherein said mechanical connection between said sealing ring and said first tubular member comprises an O-ring.

6. The device of claim **1**, additionally comprising a cylindrical wedge, wherein said wedge is selectively positionable to move said sealing ring into said sealing contact.

7. The device of claim **6**, wherein said cylindrical wedge comprises a ratchet, and wherein said ratchet precludes reverse travel of said cylindrical wedge.

8. The device of claim **6**, wherein said cylindrical wedge comprises ribs mounted on a surface of said wedge between said wedge and said sealing ring.

9. The device of claim **1**, wherein said first cavity extends into a volume between said first tubular member and said mechanical connection.

10. A seal for use in a well bore, comprising

a first tubular member and a second tubular member, wherein said first tubular member is positionable within said second tubular member and separated therefrom by an annular volume,

a first sealing ring and a second sealing ring, wherein said sealing rings are mechanically connected to said first tubular member and are selectively positionable into a sealing contact with said second tubular member,

a first cavity between said first tubular member and said first sealing ring, and

a second cavity between said first tubular member and said second sealing ring,

wherein said first cavity is in fluid communication with either the annular volume above or below the seal, and wherein said second cavity is in fluid communication with the other of said annular volumes.

11. The device of claim **10**, wherein said first sealing ring comprises an elastomer material.

12. The device of claim **10**, wherein said second sealing ring comprises an elastomer material.

13. The device of claim **10**, wherein said mechanical connection between said first sealing ring and said first tubular member comprises an O-ring.

14. The device of claim **10**, wherein said mechanical connection between said second sealing ring and said first tubular member comprises an O-ring.

15. The device of claim **10**, additionally comprising a cylindrical wedge, wherein said wedge is selectively positionable to move said first sealing ring into said sealing contact.

16. The device of claim **10**, additionally comprising a cylindrical wedge, wherein said wedge is selectively positionable to move said second sealing ring into said sealing contact.

17. The device of claim **15**, wherein said cylindrical wedge comprises a ratchet, and wherein said ratchet precludes reverse travel of said cylindrical wedge.

18. The device of claim **16**, wherein said cylindrical wedge comprises a ratchet, and wherein said ratchet precludes reverse travel of said cylindrical wedge.

19. The device of claim **15**, wherein said cylindrical wedge comprises ribs mounted on a surface of said wedge between said wedge and said first sealing ring.

20. The device of claim **10**, additionally comprising a cylindrical wedge, wherein movement of said first sealing ring or said second sealing ring relative to said wedge positions that sealing ring in sealing contact with said inner surface of said second tubular member.

21. The device of claim **10**, wherein said first cavity extends into a volume between said first tubular member and said mechanical connection between said first tubular member and said first sealing ring.

22. The device of claim **10**, wherein said second cavity extends into a volume between said first tubular member and said mechanical connection between said first tubular member and said second sealing ring.

23. The device of claim **20**, wherein said cylindrical wedge comprises ribs mounted on a surface of said wedge.

24. A device for creating a seal in a well bore, comprising

a first tubular member and a second tubular member, wherein said first tubular member is positionable within said second tubular member and separated therefrom by an annular volume,

a seal, wherein said seal is mechanically connected to said first tubular member and is selectively positionable into a sealing contact with said second tubular member,

a first fluid cavity adjacent said seal, and

a second fluid cavity adjacent said seal and in effective fluid isolation from said first fluid cavity,

wherein an increase in fluid pressure in either of said first or second fluid cavities reinforces said seal.